CLAIMS

1. A positive electrode active material for an alkaline storage battery comprising: at least one selected from the group consisting of a nickel hydroxide powder and a nickel oxyhydroxide powder,

(1) said positive electrode active material having a mean particle circularity from not smaller than 0.95 to not larger than 1,

(2) said positive electrode active material having a mean particle size from not smaller than 5 μm to not larger than 20 μm on a volume basis,

(3) said positive electrode active material having a specific surface area from not smaller than 5 m^2/g to not larger than 20 m^2/g, and

(4) at least said nickel hydroxide powder having an X-ray diffraction pattern where a full width at half maximum of a peak attributed to (101) face is from not less than 0.7 deg/2θ to not more than 1.2 deg/2θ and a ratio of a peak intensity of a peak attributed to (001) face to a peak intensity of a peak attributed to (101) face is not less than 1.1.

2. The positive electrode active material for an alkaline storage battery in accordance with claim 1, wherein the whole or a portion of said positive electrode active material has a cobalt compound on a surface of said positive electrode active material.

3. The positive electrode active material for an alkaline storage battery in accordance with claim 1, wherein said nickel hydroxide powder comprises a solid solution nickel hydroxide containing at least one selected from the group consisting of Co, Cd, Zn, Mg, Ca, Sr, Ba, Al and Mn.

4. The positive electrode active material for an alkaline storage battery in accordance with claim 1, wherein said nickel oxyhydroxide powder comprises a solid solution nickel oxyhydroxide containing at least one selected from the group consisting of Co, Cd, Zn, Mg, Ca, Sr, Ba, Al and Mn.

5. The positive electrode active material for an alkaline storage battery in accordance with claim 1, wherein the number of particles having a circularity of not larger than 0.85 accounts for not more than 5% of the number of total particles within said positive electrode active material.

6. The positive electrode active material for an alkaline storage battery in accordance with claim 1, wherein, at a point where a cumulative volume accounts for 10% of a total volume in a volume basis size distribution of particles within said positive electrode active material, the particle size coordinate is not smaller than one-third of said mean particle size.

7. A positive electrode for an alkaline storage battery including the positive electrode active material in accordance with claim 1.

8. A method of producing a positive electrode for an

alkaline storage battery comprising the steps of:

(a) preparing a paste containing a positive electrode active material; and (b) adding said paste to a metal substrate serving as a current collector and then rolling said substrate with said paste to form an electrode plate,

(1) said positive electrode active material comprising at least one selected from the group consisting of a nickel hydroxide powder and a nickel oxyhydroxide powder,

(2) said positive electrode active material having a mean particle circularity from not smaller than 0.95 to not larger than 1,

(3) said positive electrode active material having a mean particle size from not smaller than 5 μm to not larger than 20 μm on a volume basis,

(4) said positive electrode active material having a specific surface area from not smaller than 5 m^2/g to not larger than 20 m^2/g, and

(5) at least said nickel hydroxide powder having an X-ray diffraction pattern where a full width at half maximum of a peak attributed to (101) face is from not less than 0.7 deg/2θ to not more than 1.2 deg/θ and a ratio of a peak intensity of a peak attributed to (001) face to a peak intensity of a peak attributed to (101) face is not less than 1.1.